reduces profits in the current period, in return for uncertain benefits in the future. The FCC's price cap regulations introduce substantial uncertainties as to how current profits will be determined, depending on the implementation of complex sharing rules whose effects are difficult to predict. These uncertainties substantially undermine LEC incentives to cross-subsidize – even under the implicit profit constraints assumed by Dr. Johnson – unless the LEC knows, in advance, that its profits will be above some regulatory threshold (e.g., a sharing level or the level at which regulators will, according to Dr. Johnson, intervene to modify the price cap formula).

14. Finally, it is ironic, though not surprising, that the cable industry would cite the remnants of rate of return regulation in support of their claim that LECs should continue to be heavily regulated to protect against cross-subsidies to competitive (i.e., video) services. This line of argument is ironic because in state regulatory cases the cable industry has frequently opposed the removal of earning sharing, depreciation prescription and other vestiges of rate of return for LECs, no doubt so they can then use the continuation of those antiquated regulatory provisions to oppose even modest proposals for LECs' new service and pricing flexibility. Thus, the cable industry seeks to perpetuate a Scylla and Charybdis to regulatory reform. They seek to retain vestiges of rate of return regulation in price caps to disadvantage LECs, yet then they employ those vestiges as reasons to impose strict regulatory oversight.

D. EMERGENCE OF COMPETITION

15. As explained above, the baseline regulatory reforms we have proposed should be implemented immediately regardless of the level of competition faced by the LECs. In addition, as demonstrated in our opening affidavit, any existing services that remain subject to regulation should be removed from price cap restrictions as soon as competitive alternatives are available.

16. A number of the LECs' competitors argue, however, that LECs have no meaningful competition. For example the NCTA argues that the LECs face only "ghost competitors," and that "the basic fact of the single-provider is irrefutable." This is simply wrong.

17. In the first place, it is critical to focus on the relevant services when determining the existing level of competition faced by the LECs. The question here is the degree of price flexibility for the LECs' interstate access services. The relevant competition is for these services. NCTA's claims that LECs have only ghost competitors for these services is disingenuous, given that many of its members are the ghosts. In fact, cable companies own many of the largest competitive access providers such as Teleport and Eastern Telelogic.

18. More generally, the competitors' claims are an extremely misleading characterization of existing and emerging competition for interstate access. Intense competition is already present or rapidly emerging from four main overlapping sources: CAPs, IXCs, wireless providers, and cable companies. Given the dramatic changes in telecommunications technology, such as advancements in digital switching and wireless technologies, the economic foundations of local exchange access service have been shaken to the core:

> "The telecommunications industry is about to undergo a technology-driven earthquake of enormous magnitude... The financial epicenter of this metamorphosis will be in the... local loop [because] copper twisted pair is a very high cost, low functionality, archaic technology...The new technologies — high capacity fiber circuits to large businesses, wireless (new cellular, SMR, and PCS) systems and telephony and video on fiber/coaxial cable systems — have lower costs and higher functionality than the existing copper twisted pair local

loop... New entrants who can deploy the new technologies and gain market share will be very successful."[6]

19. Building on their success in the special access market, CAPs are moving toward becoming full service telecommunications companies, often focusing initially on business customers. Because access revenues are extremely concentrated in very small geographic areas, LECs are highly vulnerable to competition from competitive providers of access services who can compete for a huge share of access revenues by building out their networks in a small fraction of the total LEC service area. In its 1995 fiber deployment report, the FCC said that CAPs fiber growth rate exceeded 50 percent a year. In 1989 CAPs had installed 31 thousand fiber miles and by 1995 CAPs had installed 428 thousand fiber miles.[7] The remarkable rate of entry and growth of CAPs in access services provides the strongest possible evidence of actual competition in access markets.

20. MFS, for example, is hardly a "ghost competitor" with total revenues in 1994 of $280 million and estimated to be $500 million in 1995. At the end of first quarter 1995 MFS said that it served 3,284 buildings, the equivalent of almost 2 million basic voice grade telephone circuits connected.[8] Approximately 750 million square feet of office space were served by MFS fiber connections.[9] MFS has experienced astronomical growth, with revenues increasing by more than twenty-five fold from 1990 to 1994.[10] Moreover, judging from its market valuation, shown on Table I below, the capital market

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[6] Philip J Sirlin., Analyst for Wertheim Schroder & Co., "The Digital Battlefield: What's in the Future of Communications and Entertainment? Part One: Bellopoly -- The End of the Game," March 22, 1994, p. 5.

[7] Herb Kirchoff and Madeline Murphy, Inside the Competitive Local Exchange, Telecom Publishing Group, 1995, p. 70.

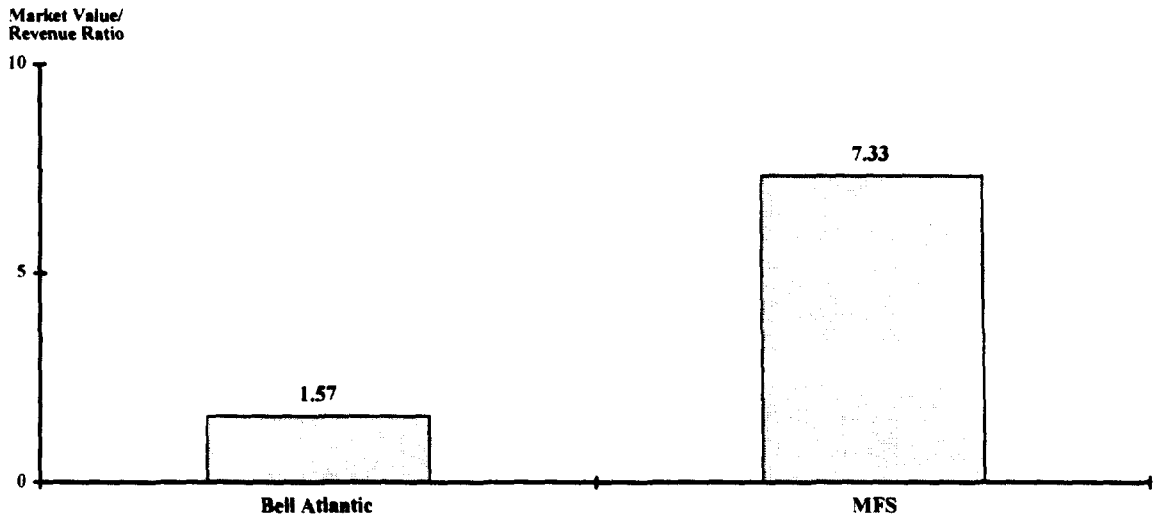
[8] Ibid., p. 95, 96.

[9] Ibid., p. 87.

[10] Ibid., p. 104.

expects MFS to continue to grow rapidly. In relation to its revenues, MFS is one of the most highly valued companies in the world with its stock valued at more than seven times current revenues. The only rational explanation for its market value is that thousands of investors have concluded that its prospects for continuing growth and profitability are excellent.

TABLE I - Market Value/Revenue Ratios of Bell Atlantic



Sources: S&P Stock Guide, January 1995; 1994 Bell Atlantic Annual Report; Disclosure Inc. 1995.

21. Table II on the following page shows that Bell Atlantic faces access market competition from CAPs in many of its most lucrative markets.[11]

[11] Source: Herb Kirchoff and Madeline Murphy, Inside the Competitive Local Exchange, Telecom Publishing Group, 1995. Updated using Comments of the United States Telephone Association, Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, Attachment 2, December 11, 1995. Includes networks in operation and under development.

Table II
Competitive Local Network Locations in Bell Atlantic Cities
(as of September 1, 1995)

Company Name	Network Location
Cox Fibernet	Chesapeake, Newport News, Norfolk, Hampton, Portsmouth, Virginia Beach, VA
Eastern Telelogic Corp.	Philadelphia and Pittsburgh, PA; DE; Southern NJ; Washington, DC; Glouscester and Mercer Counties, MD
FiberLink	Allentown, Harrisburg, Reading, PA
Hyperion Telecommunications	Harrisburg, PA; Richmond, VA
LOCATE	Washington, DC; DE; Baltimore, MD;
MCI Metro	Tysons Corner, Richmond, Lynchburg, Roanoke, VA; Washington, DC; Baltimore, MD; Northern NJ; Philadelphia, Pittsburgh, PA
MFS Communications Co., Inc.	Baltimore, MD; Northern and Central NJ; Philadelphia, Pittsburgh, PA; Richmond, VA; Washington, DC; Wilmington, DE
MH Light Net	Northern and Central NJ
Teleport Communications Group	Baltimore, MD; Jersey City, Newark, Princeton, NJ; Pittsburgh and Erie PA
Valleynet	Carlisle, Chambersburg and Harrisburg, PA; Roanoke, VA
Virginia MetroTel	Hampton, Newport News, Norfolk, Richmond and Virginia Beach, VA

22. CAPs around the country have made significant competitive inroads with large institutional users of access services. For example,

> "Kraft Food Service Inc. used to pay US West $30,000 a month for local access at its centralized communications operations in Phoenix - that was until Teleport Communications Group (TCG) made a bid the food company could not afford to pass up. Kraft - which uses about $7 million in voice, video and data services a year - now pays about 40 percent less than it did before it switched to the competitive access provider (CAP) in March."[12]

According to Kraft's national disaster recovery manager, Dan McMahn, TCG was able to secure the Kraft contract because US West's hands were tied by asymmetric price regulation: "'Because they were under a tariff' [US West] couldn't underbid'...US West 'has really been losing - eight out of 15 major accounts [in the city] have gone to TCG.'"[13] Additionally, Kraft recently hired TCG to build a large private fiber network in Kraft-owned buildings. According to McMahn, TCG's investors were able to quickly approve the deal but if Kraft had "gone to MA Bell [US West] it would have been tied up [for months] with Tariffs."[14]

23. In some cases, customers sign up with CAPs in order to improve their network reliability by using multiple providers. MFS has been providing access services to Citicorp for more than five years.[15] Even smaller CAPs are securing lucrative contracts with large institutional users. For example, Intermedia Communications, a Florida-based CAP, secured a contract worth an estimated $10 million a year to provide frame relay

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[12] Gail Lawyer, "Network Diversity, Major Cost Savings Satisfy CAP Customers," Local Competition Report, July 10, 1995, p. 1.

[13] Ibid., p. 1.

[14] Ibid., p. 2.

[15] Ibid., p. 3.

access services to the state of Florida.[16] According to the local competition report, in Florida, CAP revenues of $400 million per year are equal to one third of annual statewide switched access revenues of $1.2 billion.[17]

24. Competitive providers of access services are expanding their facilities so they can enter local exchange markets. Bundling local, access and toll services will give CAPs greater opportunities for both revenue and profit growth. Connecticut Research predicts that switched services will account for 70 percent of CAPs revenue by 1999.[18]

25. Moreover, the current level of competition is sure to increase exponentially when AT&T and other long distance providers expand their presence in the local-exchange and exchange access businesses. IXCs already are expanding into wireless and local exchange services and are marketing themselves as "full service providers." In addition to purchasing an increasing share of access services from CAPs, IXCs are likely to be significant competitors themselves in access services markets. They can continue to expand their networks in order to "self-supply" access services. It is accepted among experts in competitive strategy that there are considerable advantages to entering a market as an established incumbent in a related market relative to entering as a complete newcomer. According to a recent survey in Telephony Magazine about customer service perceptions of telephone and cable companies:

> "Our research suggests that AT&T, MCI and Sprint, far from being vulnerable to an onslaught by the RHCs, are extremely well-positioned to dominate long-distance, local, cable TV and wireless markets in the near future. We found that

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[16] Gail Lawyer, "Third-Quarter Results Show Sunny Horizon for Competitors," Local Competition Report, November 13, 1995, p. 6. (See also August 7 1995, p. 10).

[17] Gail Lawyer, "Intermedia Eyes New Opportunities As Florida Passes Telecom Bill," Local Competition Report, June 26, 1995, p. 8.

[18] Kirchoff and Murphy, Inside the Competitive Local Exchange, TPG, 1995, p. 69.

many U.S. consumers when asked who their local service provider is still answer, 'AT&T.'"[19]

26. In expanding from its current base, diversification into a related market permits a firm to exploit economies of scope. In her seminal work on diversification of firms, Edith Penrose cites the importance of specific market expertise and established marketing channels for creating what she calls an "inside track" with customers should a firm become interested in supplying other products to the same consumers.[20] Sharon Oster extends this line of thought by cataloging some of the sources of scope economies that permit leverage into new product lines.[21] These include brand name extension, knowledge about the customers' needs and demand, consumer confidence, established marketing networks, and joint use of physical facilities and a common labor pool. All of these are likely to be operable for incumbent long distance carriers seeking entry into access service markets. Montgomery and Hariharan document empirically the tendency of diversifying firms to enter activities in which the resource requirements are similar to their own resource capabilities.[22] Profit maximizing firms enter lines of business in which they are likely to have the greatest competitive advantage. It is clear that the incumbent long distance carriers have substantial economies of scope in retailing and brand name, a competitive advantage that MCI and Sprint did not enjoy upon entering the long distance market two decades ago.

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[19] Steven Titch, "Supplement to Telephony: Customer Care Special, Winner Take All," Telephony, November 6, 1995, p. 3.

[20] Edith T. Penrose. *The Theory of The Growth of The Firm.* Oxford: Oxford University Press, 1959, p. 117.

[21] Oster, Sharon. *Modern Competitive Analysis.* New York: Oxford University Press, 1990, p. 184.

[22] Montgomery, Cynthia A. and Hariharan, S. "Diversified Expansion by Large Established Firms," *Journal of Economic Behavior and Organization*, Vol. 15, 1991, pp. 71-89.

27. AT&T, in particular, is well-positioned to prosper in access and local exchange markets without the protection of regulations that stifle competition from LECs. By acquiring McCaw Cellular, AT&T has become the largest cellular carrier in the U.S., with 16% of the nation's cellular revenues.[23] AT&T was the second highest bidder in the recently conducted Personal Communications Services (PCS) auctions, paying $1.68 billion for licenses in 21 markets, more than doubling its potential customer base for wireless services to 200 million people, or 80% of the U.S. population.[24] AT&T's development of the wireless business allows it to self-supply an increasing amount of originating and terminating access for long-distance calls using "wireless local loops." In addition to its wireless entry, AT&T has applied to become a certified local exchange carrier in many states, including California, Illinois, Michigan, New York, Wisconsin, and in Bell Atlantic's service area, New Jersey and Maryland.

28. MCI is also well positioned to compete as a full-service telecommunications provider. MCI has recently had a major infusion of capital through a 20% equity investment by BT (formerly British Telecom), which is itself a $23 billion company, eager to enter the U.S. market through MCI. MCI Metro, which MCI touts as "a full-service local telephone company,"[25] intends to serve not only MCI's interexchange customers but those using other IXCs as well. MCI also has a well-known brand name that will help it compete for local exchange customers.

29. Sprint is a powerful potential competitor for several reasons. With nearly 6 million local access lines in 19 states, Sprint is already a major provider of local exchange services through its United and Centel subsidiaries. Like MCI, Sprint will receive a

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[23] The Wireless Communications Industry, Donaldson Lufkin Jenrette, Summer 1994, p. 11

[24] "Wireless Sales Winners Include AT&T , Sprint...," *The Wall Street Journal*, March 14, 1995, p. A3.

[25] "MCI Details Local Plans," *Information Week*, May 2, 1994, p. 18.

major infusion of foreign capital, with equity investments by France Telecom (FT) and Deutsche Telecom (DT). In addition, Sprint is involved in providing wireless access and local exchange services through Sprint Spectrum, its joint venture with its consortium of cable TV partners: TCI, Comcast, and Cox Communications Inc. On November 15, 1995, Sprint Spectrum became the first PCS company to start providing service, activating its network in the Washington DC-Baltimore corridor. Sprint Spectrum has spent an estimated $5 million promoting this service with newspaper and television advertising and experts predict that more than 40,000 customers will sign up for service this year in the Washington DC area alone.[26]

30. Dramatic increases in market penetration and usage show that wireless service increasingly competes with wireline, especially for intensive users who get high value-added from communications, and users who need site-specific access for short durations. Prices for wireless equipment and services have been dropping rapidly,[27] and cellular and PCS companies are investing heavily to expand and enhance their networks.[28] Rapid growth is expected to continue, driven by increased network capacity and competition.[29] Wireless services are rapidly moving beyond traditional local and toll calling into data services and even high capacity transmission. Using wireless modems, more and more

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[26] Debra Wayne, Crain Communications Inc., Sprint Spectrum PCS Premiere Garners Early, Warm Reception, December 18, 1995.

[27] In recent years, the price of cellular phones has dropped seven-fold, and the inflation adjusted price of equipment and service has fallen by more than 50%. *The Geodesic Network II*, 1992, p. 4.23.

[28] Cumulative capital investment in the cellular industry reached almost $14 billion in 1993. The Wireless Factbook, Cellular Telecommunications Industry Association, 1994, p. 9.

[29] Recent and expected developments in technology underlying the wireless networks will expand the capacity and capability of all wireless telephony by a multiple of five to 20 times present levels. For example, the cellular systems in the Los Angeles area have present theoretical capacity of 700,000 users but the deployment of digital cellular systems would increase that capacity to 14 million. Capacity can also be increased almost indefinitely through the addition of more cells. (See Huber, Peter, "Competition and Open Markets in the Telecommunications Markets of California," February 8, 1994, p. 51.)

individuals are transmitting computerized data and faxing documents over cellular networks. Also, wireless service providers are introducing a wide range of data products for businesses.[30,31]

31. Cable companies are offering access services through Teleport, a CAP that is jointly owned by TCI, Continental Cable Vision, Comcast Corp. and Cox Communications. In the Bell Atlantic territory, SBC Media Ventures, a subsidiary of SBC Communications (SBC) an RBOC from another region, purchased Cable TV Montgomery and Cable TV Arlington, two Washington DC-area cable systems. This purchase made SBC the first Bell company to own cable systems in the U.S.[32] In May 1994, SBC filed a petition with the Maryland Public Service Commission to provide local exchange telephone service to cable customers.[33] Other cable companies around the country are preparing to offer local exchange services, particularly to residences, using their extensive network that now passes by more than 95% of U.S. homes. The industry invested more than $20 billion in plant and equipment during the 1980s. Much of the recent investment has been fiber optic transport and advanced digital electronic equipment which permit two-way telephony. According to the National Cable Television Association, "by late 1992, 77% of cable plant was capable of two-way communications, and virtually all newly built cable plant is two-way capable. In short, the cable industry stands poised to expand

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[30] McCaw Cellular designed a wireless package-tracking system for UPS and has recently introduced a wireless data communications network called AirData. "McCaw's Wireless Data Vision," Telephony, March 20, 1995.

[31] WinStar Telecommunications Group recently introduced a wireless high-capacity service that competes with LEC T1 lines. This product is positioned as a cost-effective alternative to wired short-haul links up to five miles. The installation fee is comparable to LEC prices, but recurring prices will be 10% to 15% below that of the LECs. "WinStar Offers Wireless Alternative in the Local Loop," Network World, February 27, 1995, p. 30.

[32] Herb Kirchoff and Madeline Murphy, Inside the Competitive Local Exchange, Telecom Publishing Group, 1995, p. 169.

[33] Ibid.

beyond its core business and become a full participant in the nation's telecommunications infrastructure."[34]

32. Given the extraordinary growth in competition in access services since the current rules were developed, it is inconceivable that those same rules would make sense in today's rapidly emerging competitive environment. The reforms we proposed in our initial affidavit are fully justified by the current market conditions. Indeed the reforms are necessary to ensure that all customers, not just those served by CAPs, enjoy the benefits of competition and that LECs are able to compete with entrants as they continue to expand their presence in access markets and enter local exchange markets. The comments of the GSA, a large customer which surely recognizes the benefits of increased competition, supports our view:

> "While there is justification for greater downward pricing flexibility in the absence of competition, the presence of competition increases that justification..."[35]

E. MEASUREMENT AND IMPLICATIONS OF COMPETITION

33. Competitors not only deny the existence of competition, they offer inappropriate benchmarks to measure that competition. It is important to reiterate that market share is not an accurate proxy for market power. Market share is a backward-looking statistic. Market share measures historical sales or investments. It does not measure the constraints that limit the ability of present and future suppliers to exercise market power by raising prices or lowering output. As we have emphasized, our proposal to eliminate

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[34] National Cable Television Association, "Cable Television and America's Telecommunications Infrastructure," 1993, pp. 5,7 from the Information Infrastructure Sourcebook, Version 3, Vol. 1, John F. Kennedy School of Government, Harvard University.

[35] GSA, "Pricing Flexibility within the Price Cap Plan", pp. 5-6.

regulations that impede the introduction of new services and new pricing arrangements is pro-competitive without regard to the existence of market power (provided existing services remain available and prices exceed incremental costs). However, some regulatory reforms, such as the easing of price caps for existing services, do require an assessment of market power. This assessment should not be based on mechanical measures of market share.

34. Given AT&T's past downplaying of the importance of market share,[36] it is ironic that AT&T's affiant is now leading the charge to impose a rigid measure of market share as the basis to assess market power. Professor Bernheim would require that at least 30 percent of subscribers are using an alternative provider as one of several necessary conditions to sustain a rebuttable presumption of market power. Such a rule of thumb could have disastrous consequences for competition and for the welfare of consumers. First, it is not necessary to demonstrate actual alternative purchases of this magnitude if subscribers have available competing suppliers of comparable price and quality. Consumers are damaged by such a rule if the LEC is denied the flexibility to lower its prices to compete with the offerings of an alternative provider. It is easy to see why a competitor would want a LEC to be bound by regulation to sustain a price umbrella for the services that the competitor provides. It is much harder to see why such pricing inflexibility would benefit consumers. Second, in most access markets, 30 percent of the subscribers would likely provide a large percentage of the available revenues. This

[36] " [Expert submissions made in the proceedings] further acknowledge that market share statistics, standing alone, do not demonstrate the presence or absence of market power, and that other factors must therefore be examined to assess whether any carrier has market power... These are not controversial assertions; to the contrary, there is economic and legal consensus supporting each." (Reply Comments of American Telephone and Telegraph Company, In the Matter of Competition in the Interstate Interexchange Marketplace, CC Docket No. 90-132, September 18, 1990, p. 3)

compounds the potential competitive inequities that would follow from such a mechanical standard.

35. The value of market share statistics as a guide to regulatory reform is further devalued by the difficulties of collecting accurate statistics in the rapidly changing telecommunications industry. As we have emphasized elsewhere in our testimony, competitors such as CAPs and others benefit from the pricing constraints that are differentially imposed on LECs. These competitors have no incentive to advertise their success in building market share, if that information would lead to an easing of the regulatory constraints on their LEC competitors. We agree with Professor Bernheim that there are many different geographic and service market niches in the telecommunications industry. For example, CAPs have focused their competitive efforts on special access services in urban markets. There is anecdotal evidence that CAPs have prospered in many of these markets, but hard data are difficult to obtain. By the time such data are widely available, LECs will have lost the opportunity to compete for many of the customers that have subscribed to alternative providers. This informational lag harms consumers by denying them the benefits of unrestrained competition and by protecting the entry of less efficient competitors.

36. AT&T urges that the Commission keep the shackles of regulation tightly fastened on the LECs in other respects. Professor Bernheim advocates that it is necessary to impose competition tests "...in which every service component and every bundle of service components is separately subject to price cap regulation."[37] In other words, Dr. Bernheim would keep upstream services regulated until all downstream services, as well as upstream services, become fully competitive. This is contradictory to the progress of

[37] Bernheim, "An Analysis of the FCC's Proposal for Streamlined Regulation..." p. 21.

deregulation in almost every other industry. The trend has been for regulations to be lifted on products and services as they become competitive, while focusing regulation only on natural monopoly services. For example, natural gas prices were deregulated while retaining regulation of natural gas pipelines. Both state regulatory commissions and the Federal Energy Commission have taken steps to deregulate electricity generation, although transmission and distribution are likely to continue to be regulated. In telecommunications, long distance and enhanced services have been deregulated. The benefits of this selective deregulation are apparent. It permits competition to thrive where competition can be effective, giving consumers the benefits of additional choices and often new services.

37. It is not necessary to divest potentially competitive services from regulated complements in order to achieve the benefits of selective deregulation. It is only necessary that regulation be at least partially effective in limiting the exercise of market power with respect to the natural monopoly services. Regulation has succeeded in this respect in other industries. There is no reason why regulation cannot limit the exercise of market power in core local telecommunications services. Indeed, AT&T's emphasis on the need for continued regulation of local exchange markets suggests faith in the effectiveness of regulation. If regulation were ineffective, there would be no need to cling to demanding standards that must be met before regulations could be eased (unless the purpose of such regulations is merely to impose unnecessary costs on LEC competitors).

AFFIDAVIT OF RICHARD J. GILBERT AND ROBERT G. HARRIS

We, being duly sworn, depose and say that the foregoing testimony is true and correct to the best of our knowledge and belief.

Richard J. Gilbert

Robert G. Harris

Subscribed and sworn to before me this 8th day of January, 1996.

Notary Public

My commission expires:

4/11/97

KATHY A. STEPHAN
Comm. # 991298
NOTARY PUBLIC - CALIFORNIA
City and County of San Francisco
My Comm. Expires Apr. 11, 1997